



The Timken Company

4500 Mt Pleasant St. NW

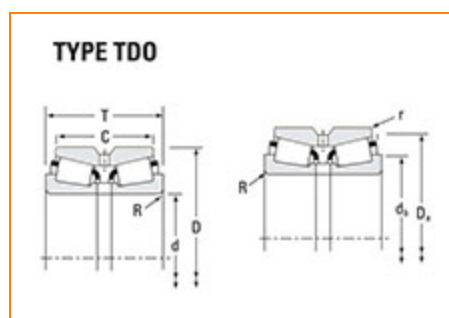
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Part Number 558 - 552D, Tapered Roller Bearings - TDO (Tapered Double Outer) Imperial

The configuration of the TDO provides a wide effective bearing spread, making it ideal for applications in which overturning moments are a significant load component. TDO bearings can be used in fixed positions or allowed to float in the housing bore.



[Specifications](#) | [Dimensions](#) | [Abutment and Fillet Dimensions](#) | [Basic Load Ratings](#) | [Factors](#)

Specifications

Series	555
Cone Part Number	558
Cup Part Number	552D
Design Units	Imperial
Bearing Weight	9.32 lb 4.225 Kg
Cage Type	Stamped Steel
Ab - Cage-Cone Frontface Clearance	0.08 in 2 mm
Alternate Part Name	558-552D

Dimensions

d - Bore	2.3750 in 60.325 mm
D - Cup Outer Diameter	4.8750 in 123.825 mm
B - Cone Width	1.4440 in 36.678 mm
C - Double Cup Width	2.5 in 63.5 mm
T - Bearing Width across Cones	3.1249 in 79.372 mm

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	0.09 in 2.300 mm
r - Cup Frontface "To Clear" Radius²	0.06 in 1.5 mm
db - Cone Backface Backing Diameter	2.99 in 75.90 mm
Da - Cup Frontface Backing Diameter	4.56 in 115.82 mm
Aa - Cage-Cone Backface Clearance	0.07 in 1.8 mm

Basic Load Ratings

C90 - Dynamic Radial Rating (One-Row, 90 million revolutions)³	13200 lbf 58600 N
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C1 - Dynamic Radial Rating (Two-Row, 1 million revolutions)⁴	88500 lbf 394000 N
C90(2) - Dynamic Radial Rating (Two-Row, 90 million revolutions)⁵	22900 lbf 102000 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	7810 lbf 34700 N

Factors

K - Factor⁷	1.69
e - ISO Factor⁸	0.35
Y1 - ISO Factor⁹	1.95
Y2 - ISO Factor¹⁰	2.9
G1 - Heat Generation Factor (Roller-Raceway)¹¹	91
G2 - Heat Generation Factor (Rib-Roller End)	21.1
Cg - Geometry Factor¹²	0.111

¹ These maximum fillet radii will be cleared by the bearing corners.

² These maximum fillet radii will be cleared by the bearing corners.

³ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

⁴ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

⁵ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁸ These factors apply for both inch and metric calculations. Consult your Timken representative for

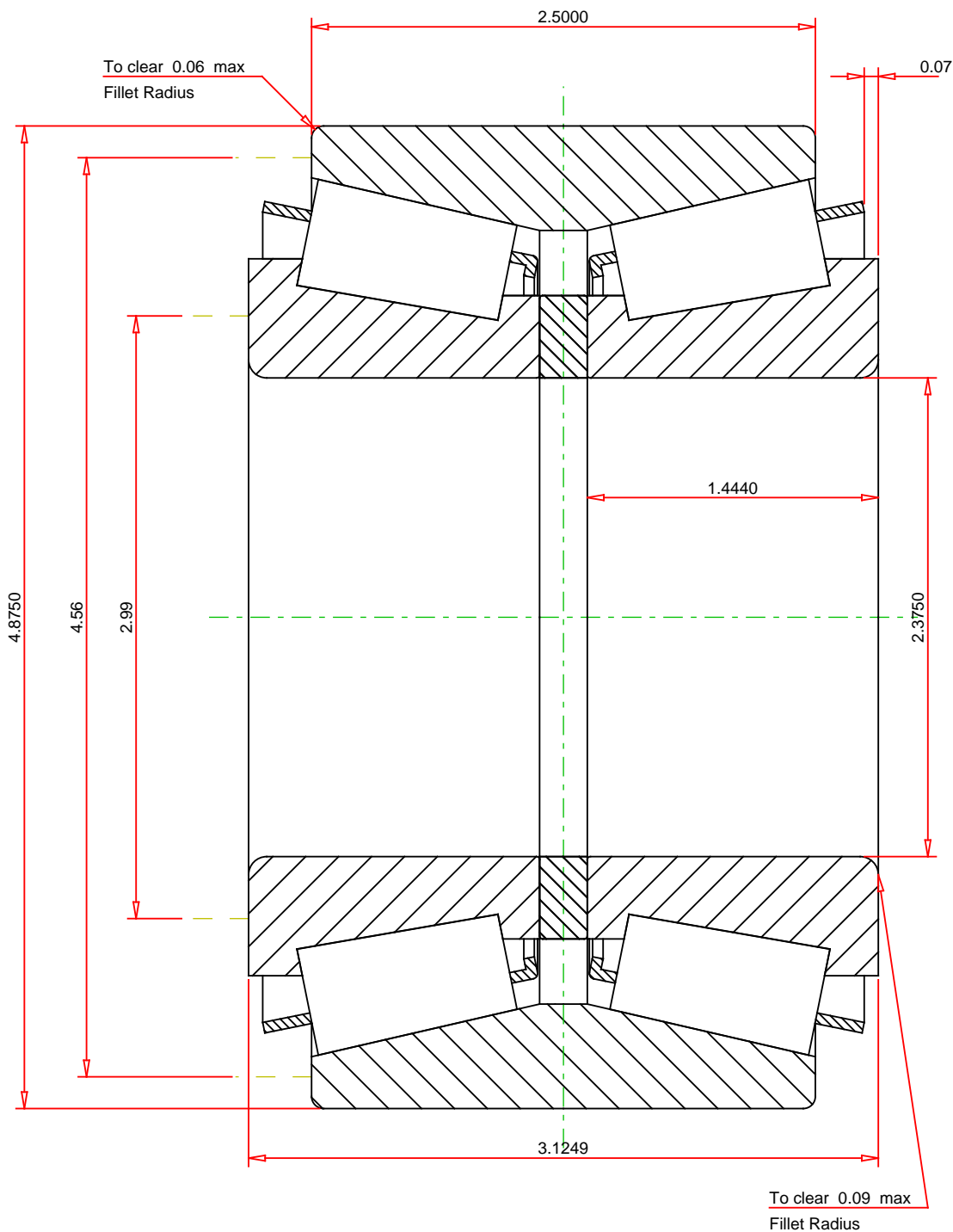
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⁹ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

¹⁰ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

¹¹ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

¹² Geometry constant for Lubrication Life Adjustment Factor a_3 .



IMPERIAL UNITS

ISO Factor - e	0.35
ISO Factor - Y1	1.95
ISO Factor - Y2	2.9
Bearing Weight	9.32
Number of Rollers Per Row	19

lb

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

558 - 552D
TDO BEARING ASSEMBLY

K Factor	1.69	
Dynamic Radial Rating - C90	13200	lbf
Dynamic Thrust Rating - Ca90	7810	lbf
Dynamic Radial Rating - C90(2)	22900	lbf
Radial Rating - C1	88500	lbf

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

FOR DISCUSSION ONLY